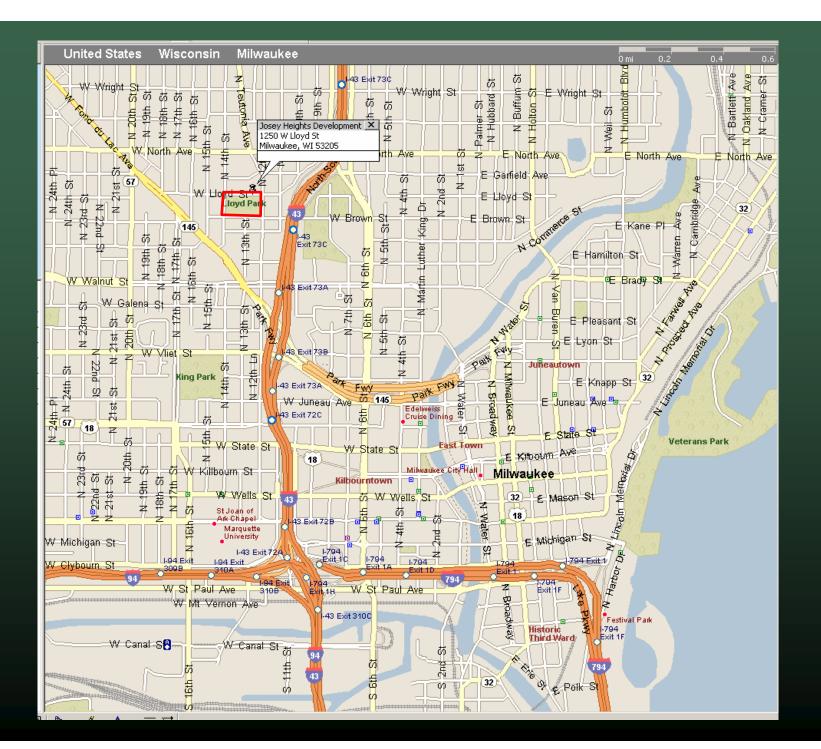


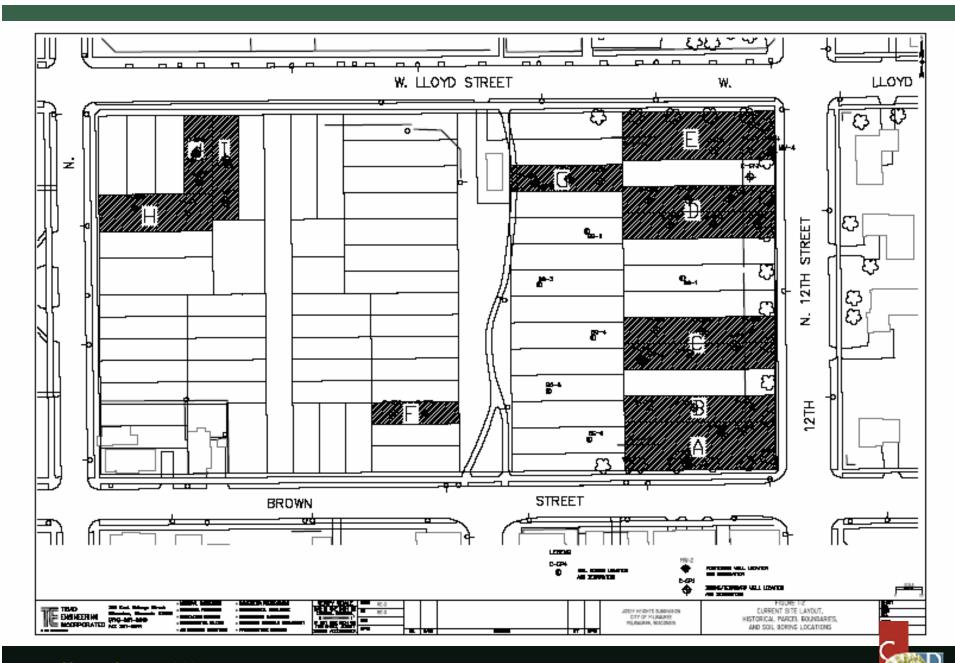
### Josey Heights Milwaukee, WI

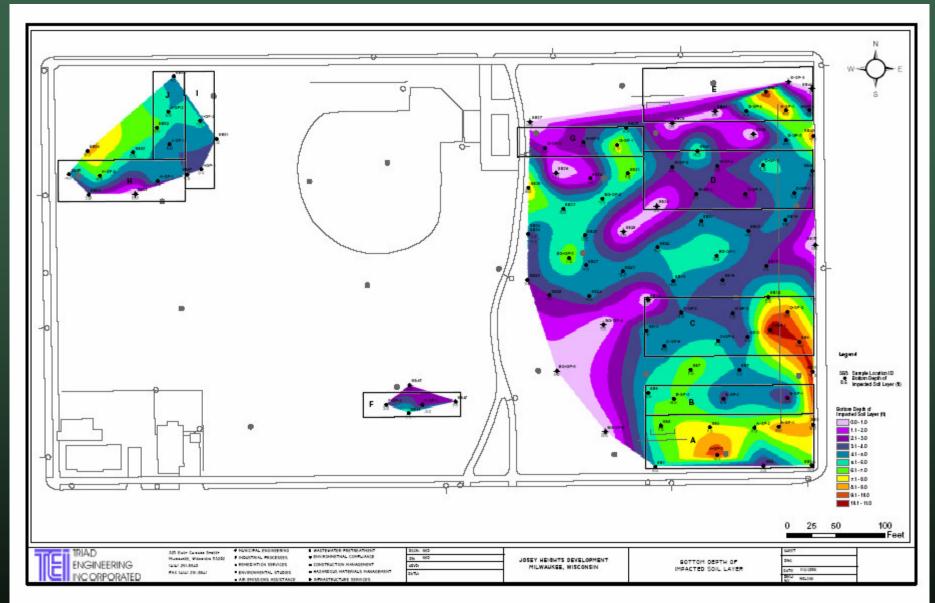










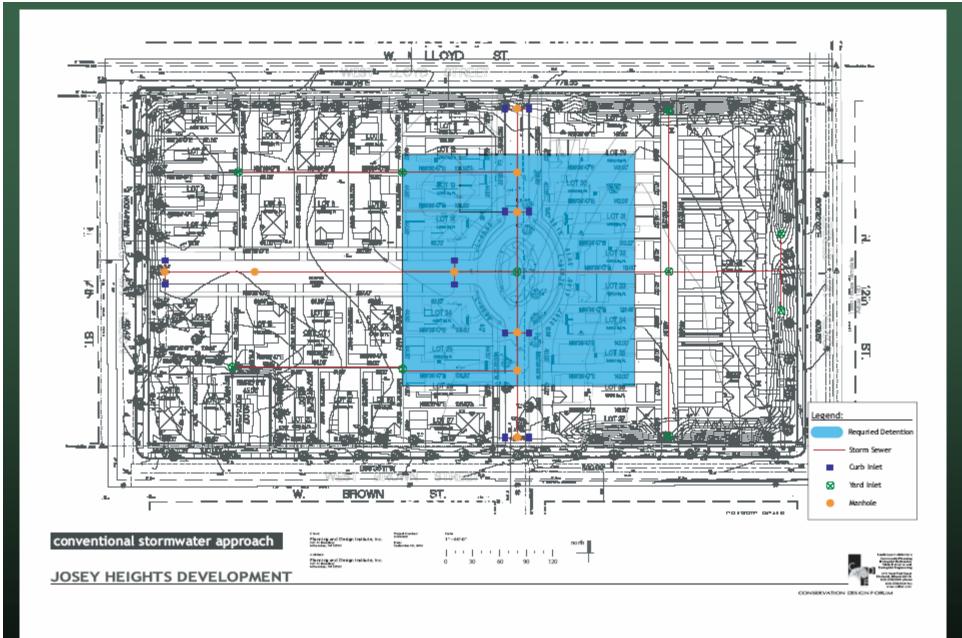




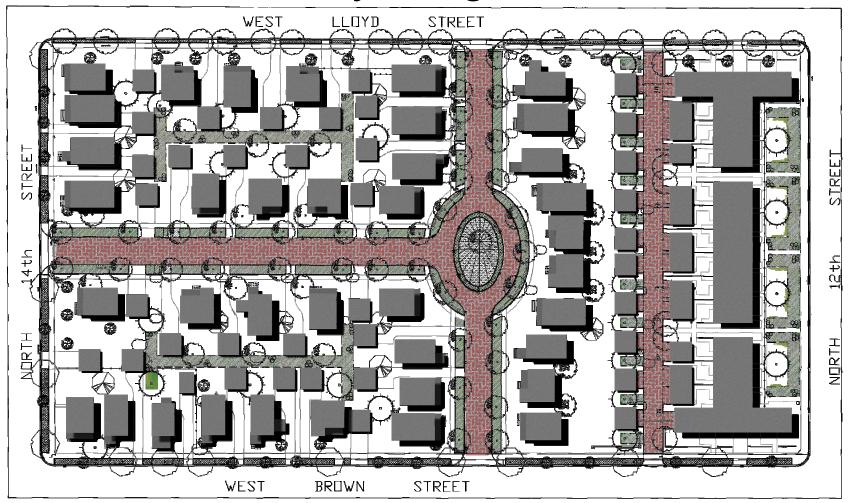








### Josey Heights



Rain Gardens

Street Bioswales Permeable Paving



## Josey Heights



Rain Gardens Street Bioswales Permeable Paving

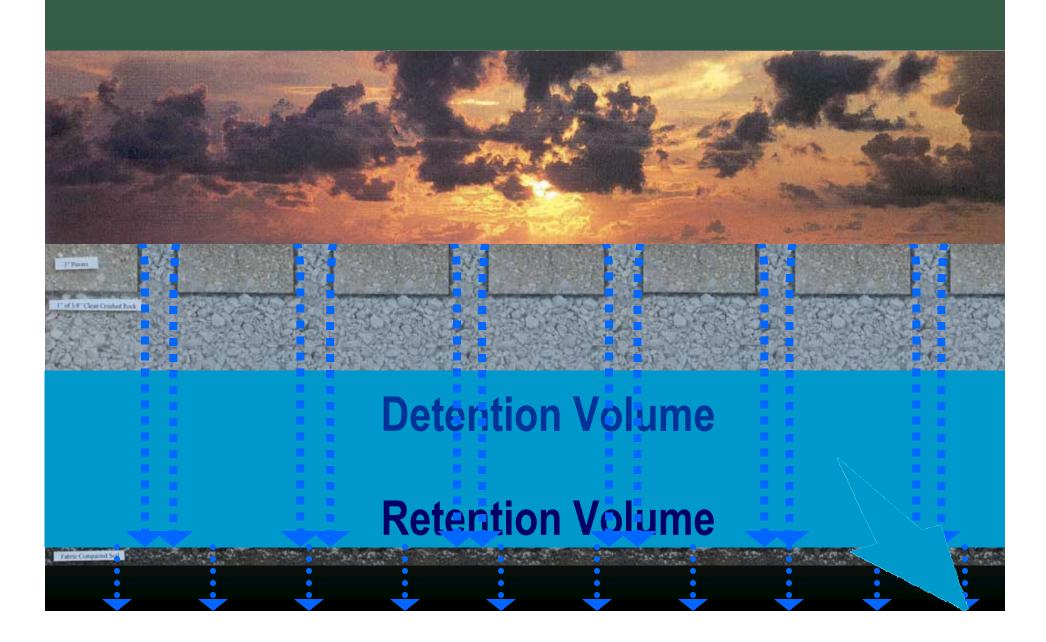


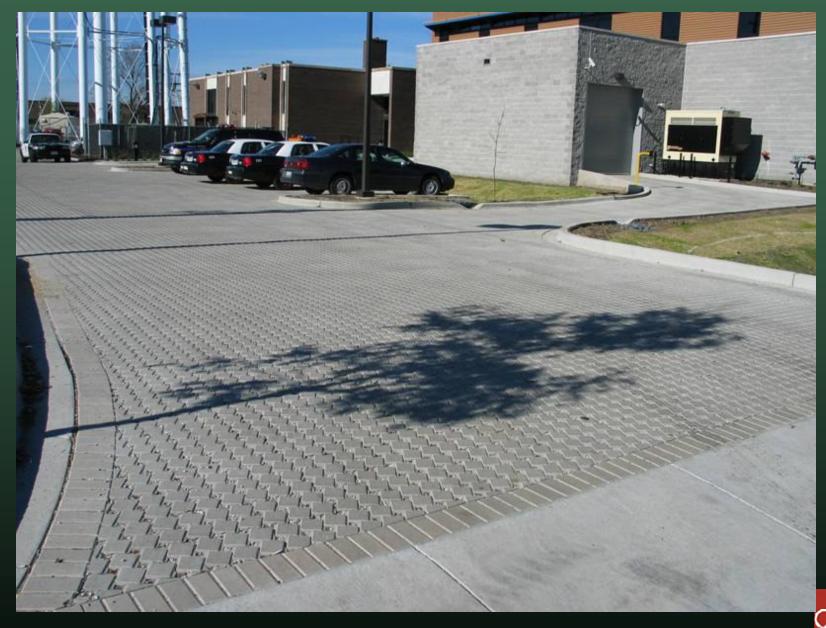
### **Porous Pavement**



## **Porous Pavement:**

**Infiltration (Retention) and Detention Capacity** 















### **Bioretention Swales**

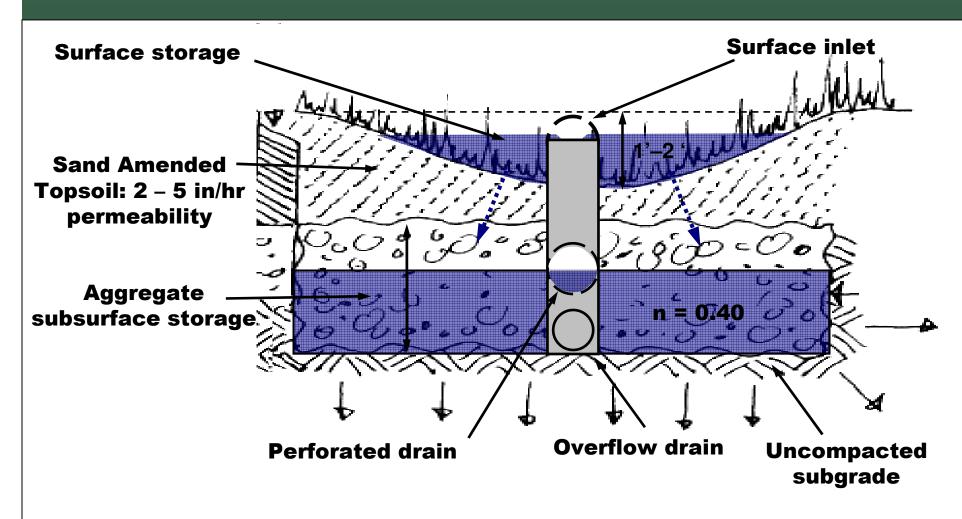
#### Conventional

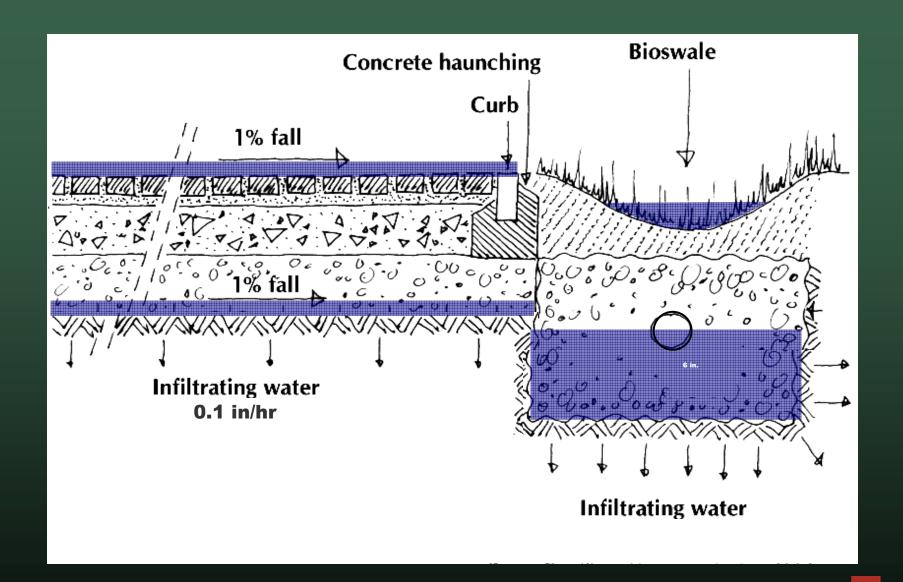
#### Conservation

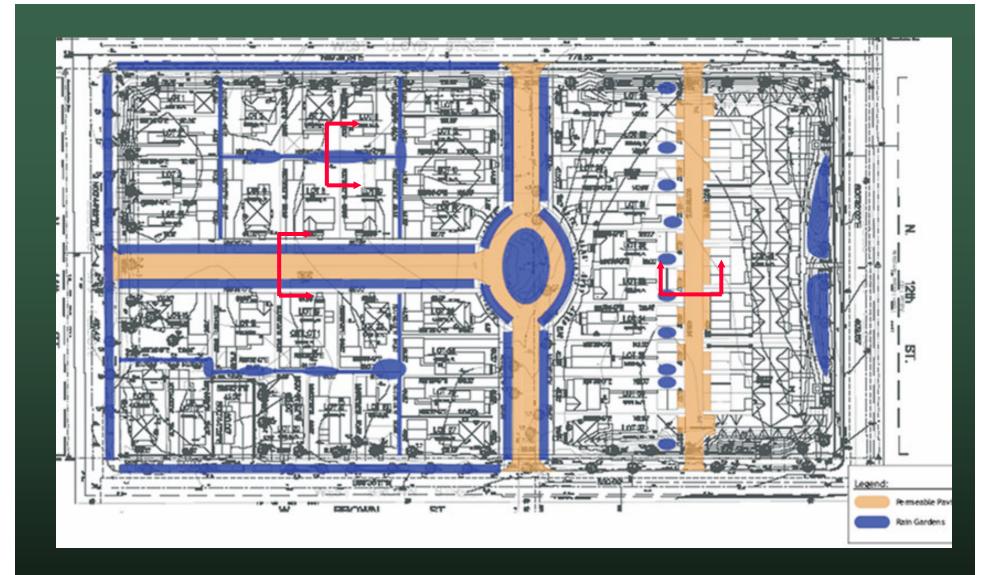




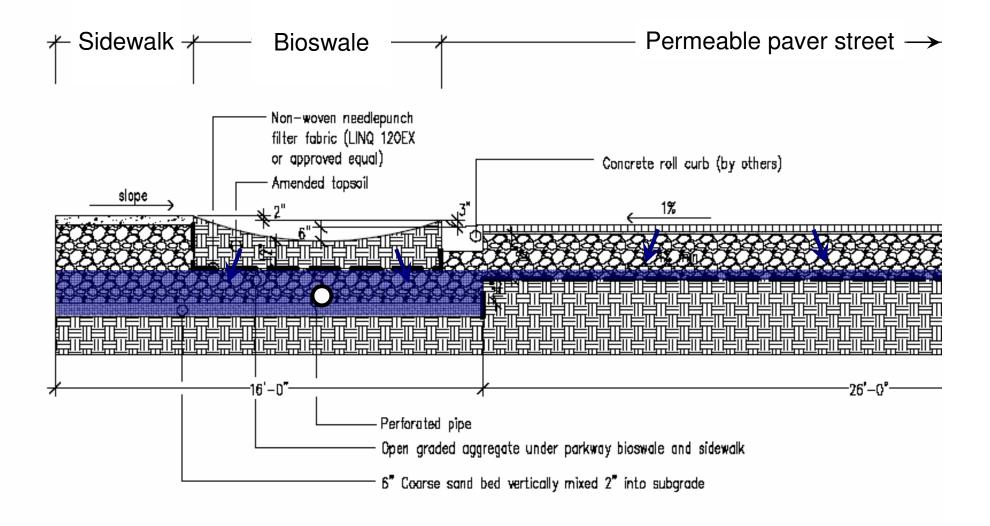
#### **Rain Garden Section**





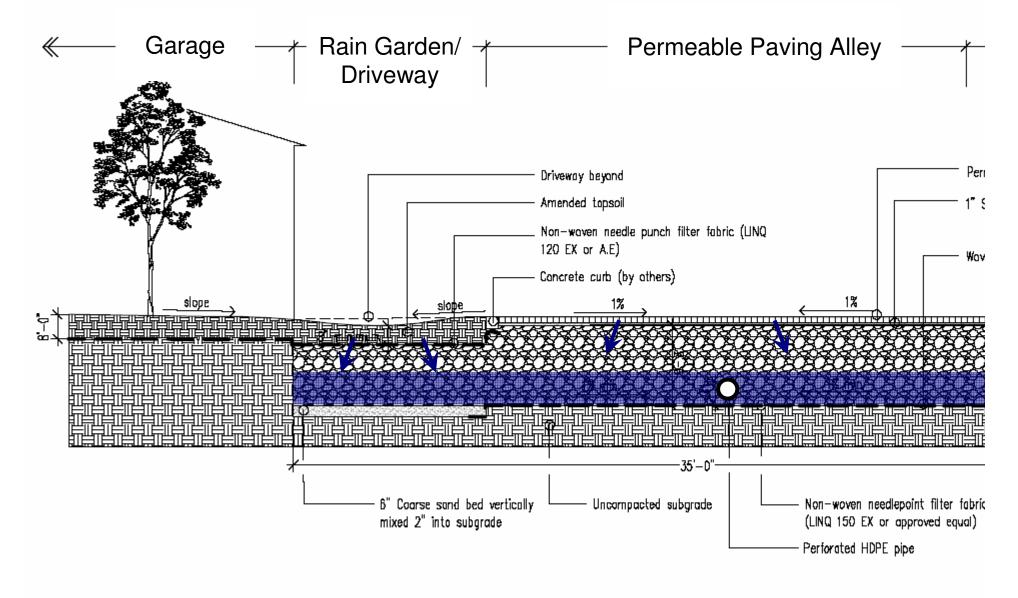






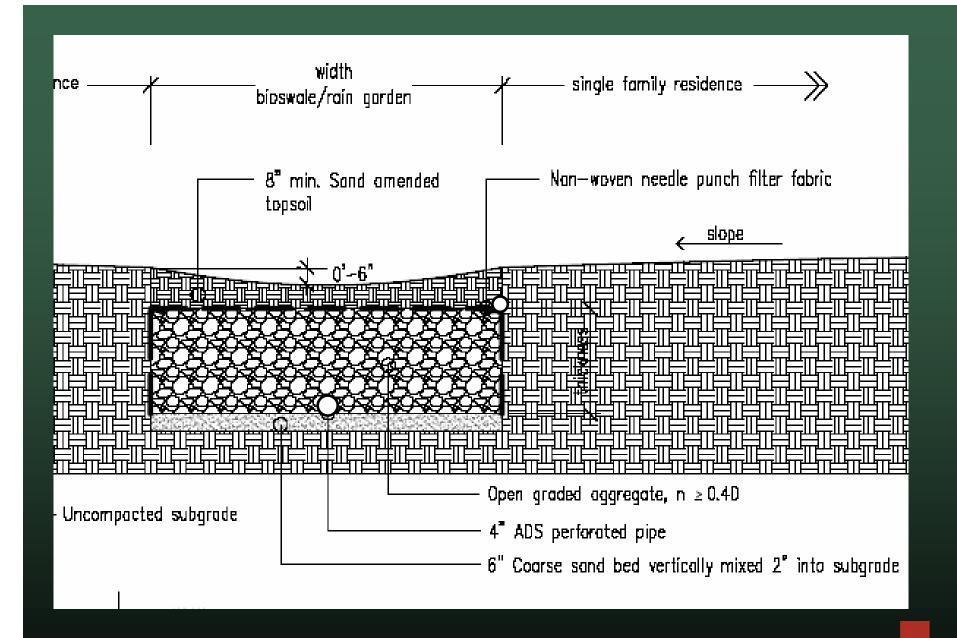


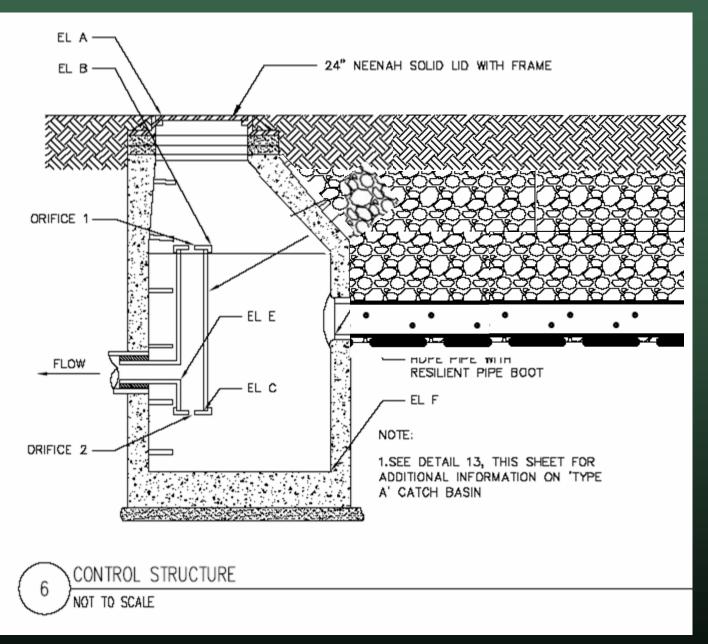


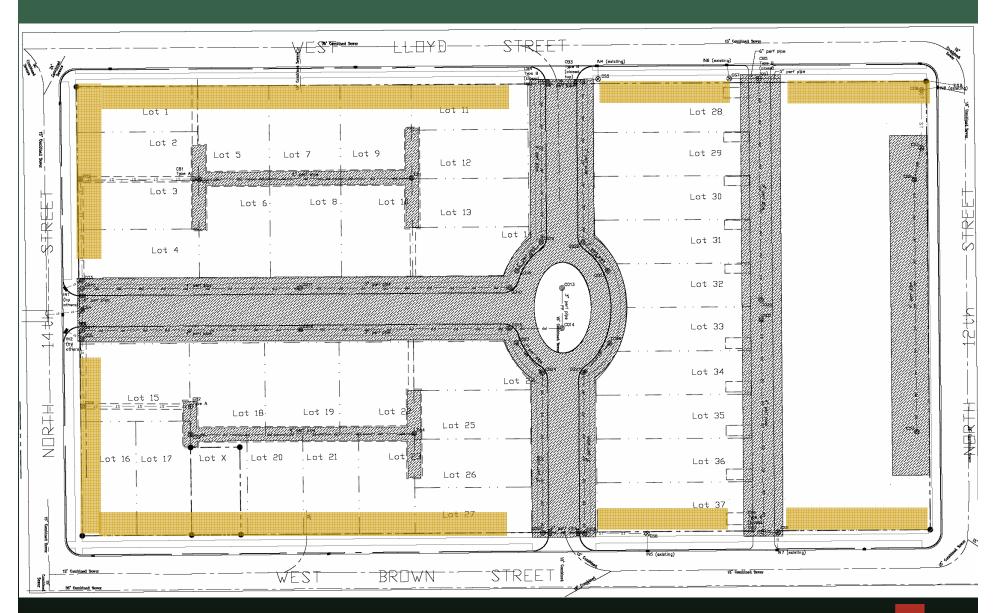


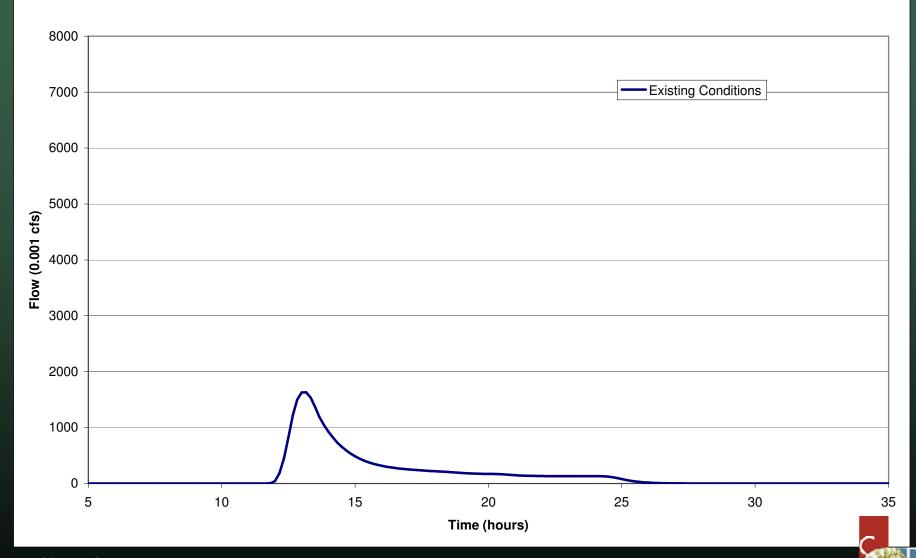


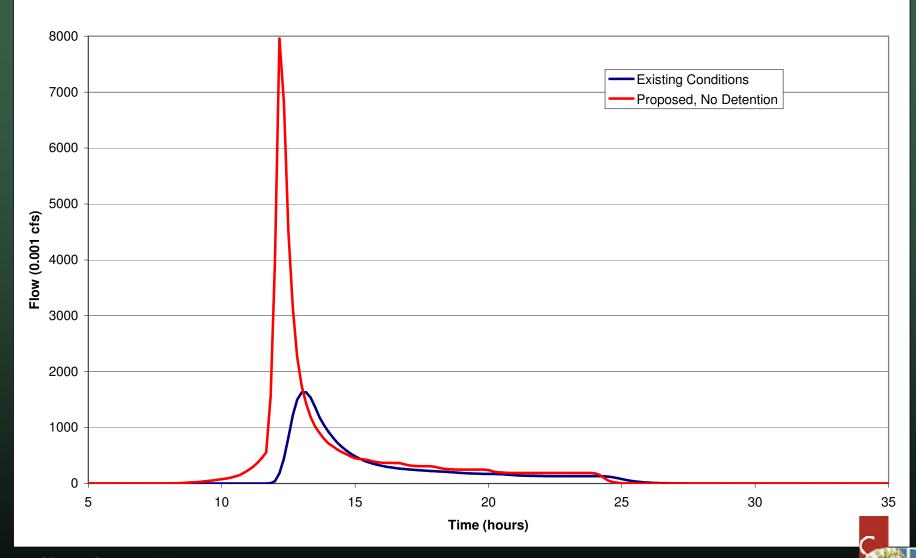


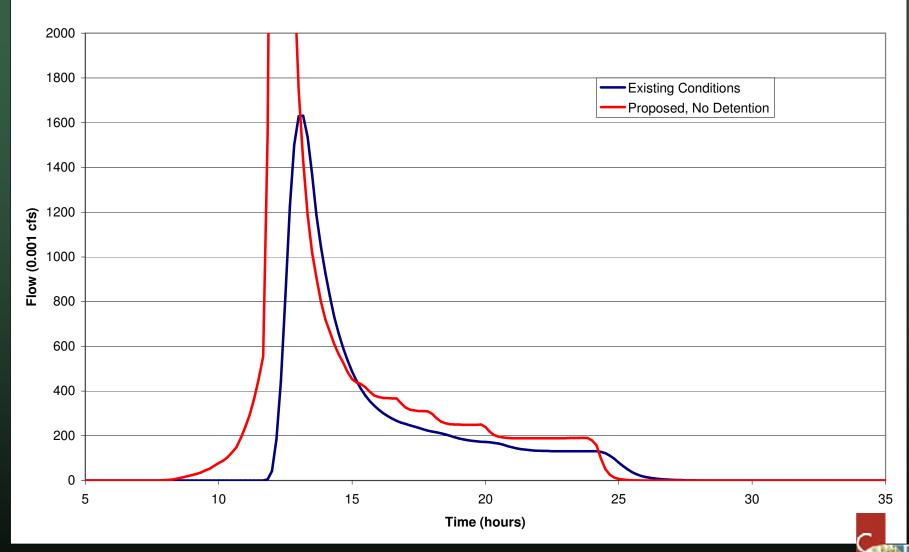


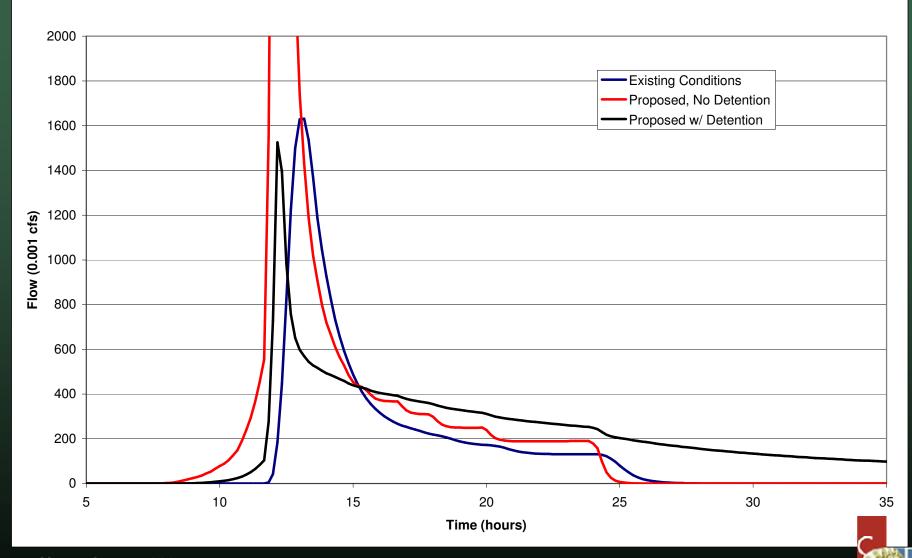


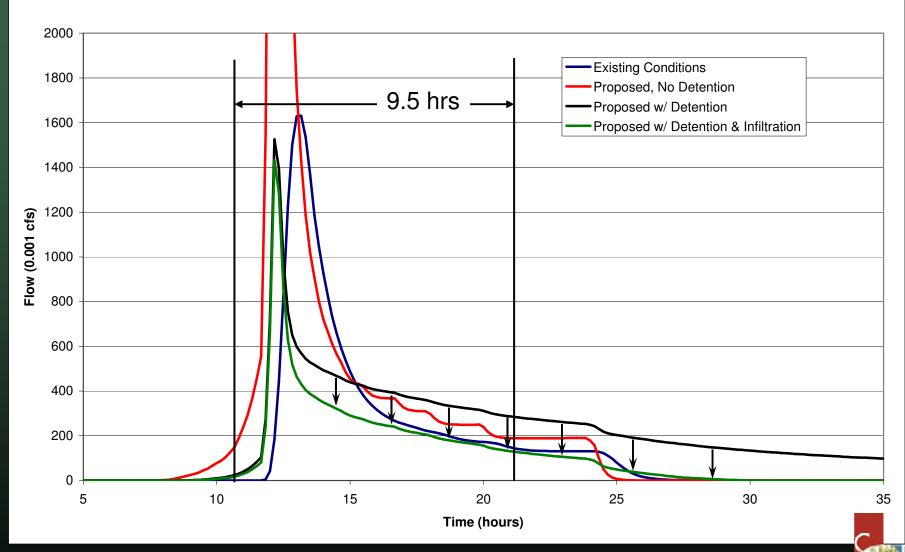


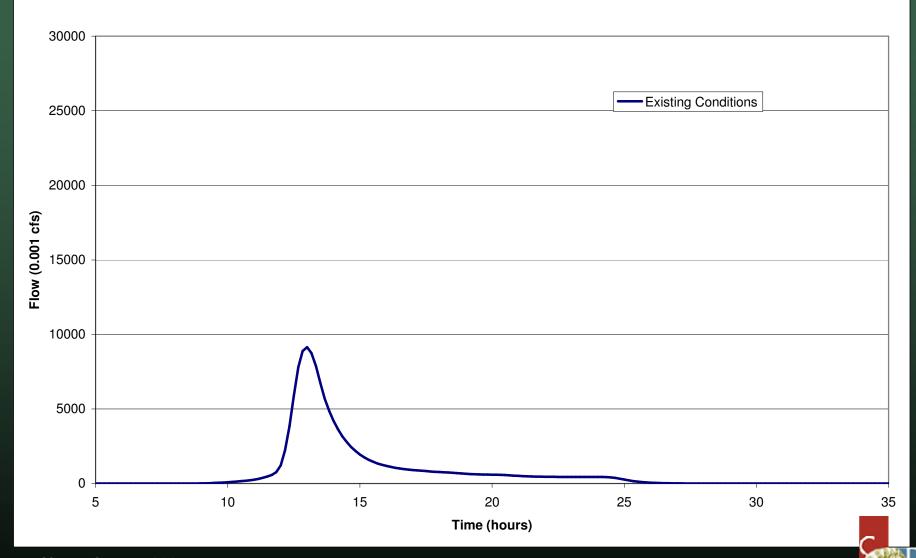


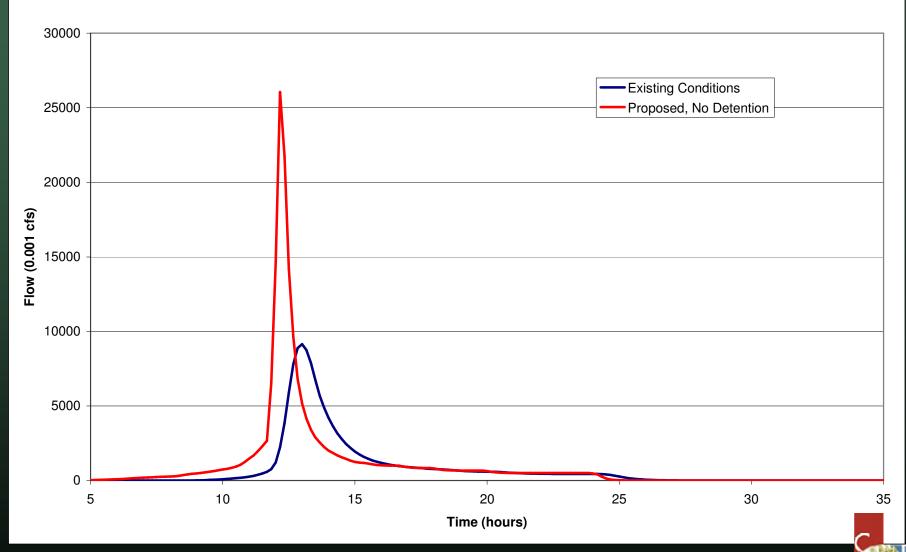


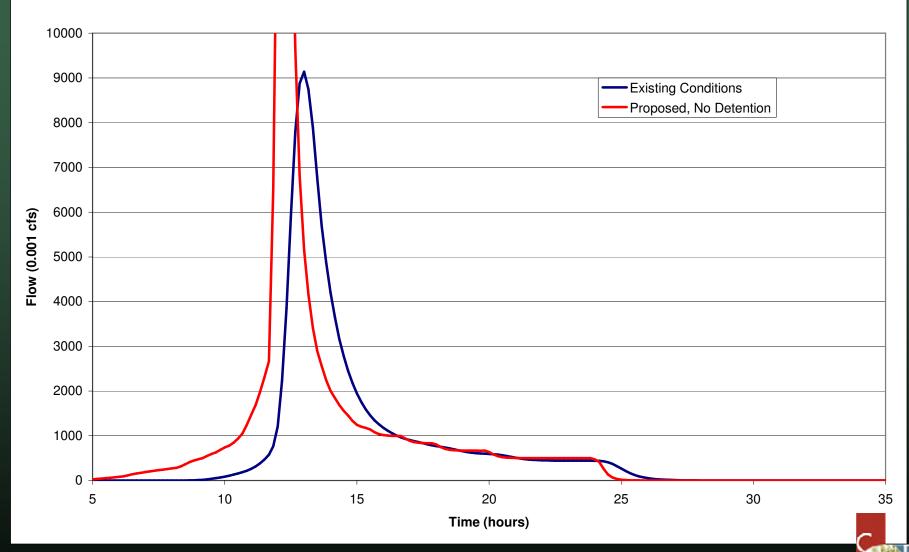


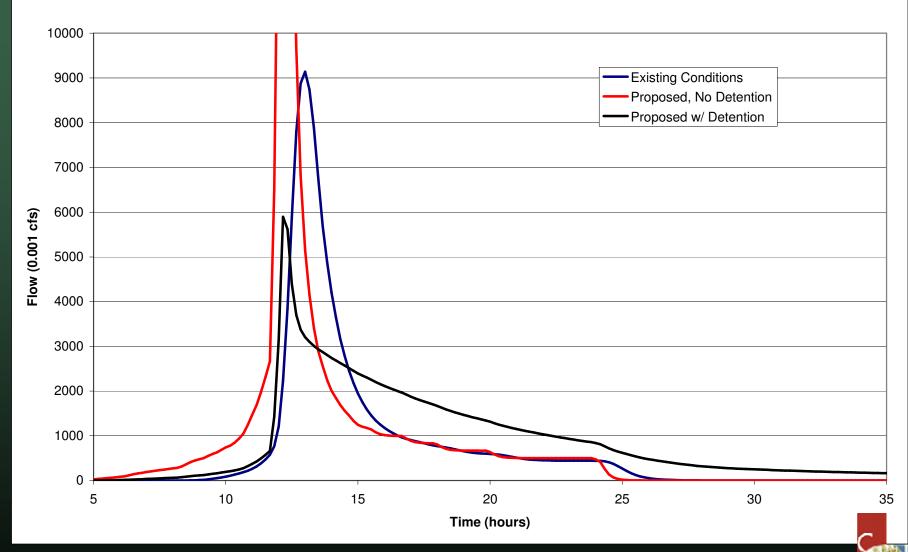


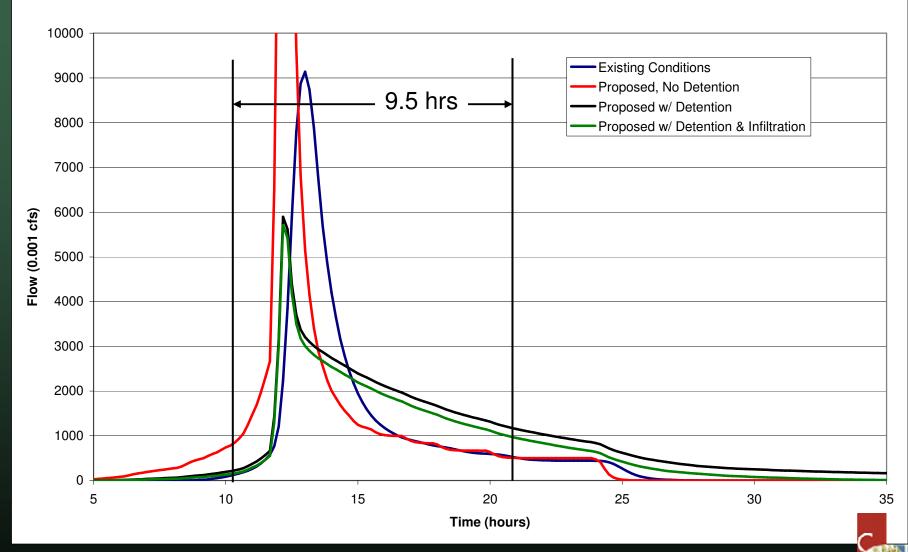












## Estimated Project Performance

	24-hour Rainfall	Existing Conditions	Proposed w/o	Proposed w/
Event			Detention	Detention
2-yr Flow	-	1.6 cfs	8.0	1.4 cfs
100-yr Flow	-	9.1 cfs	26.1	5.7 cfs
2-yr VDP		4.3 cfs-hrs		4.3 cfs-hrs
100-yr VDP		<b>20.9 cfs-hrs</b>		<b>20.8</b> cfs-hrs
2-yr Runoff	2.57"	0.65"	1.30"	0.46***
100-yr Runoff	5.88"	3.08"	4.29"	3.13***

## City Coordination

- Site Remediation
- Sewer and Water Installation
- Road and Alley Installation

## Construction Sequencing

- Site Remediation & Utility Installation
  - Remove contaminated soil from site
  - Fill excavations using trench excavations from utilities
  - Stub utilities five feet past sidewalk
- Street and ROW Stormwater Installation
  - Trench excavation respread onsite
  - Install walks & driveway aprons
  - Protect Paving from construction site runoff
- Build houses, accessing site from back
- Install backyard bioswales

# Questions?

